TEST DATA SHEET FOR ELECTROSURGICAL UNIT
IDS SERIES

W/ O NUMBER: _____

Catalog #: _____ **Unit Serial #:** _____ **Assy # 18-077- & Rev. #:** ____

Test using QA-256

6.1.3.1 Final Assembly Router completed up to Step 3 ☐ Completed

6.1.3.2 Verify Serial Number on back of Unit to DHR and Final Assembly Router ☐ Completed

6.1.3.3 Check hardware (8 screws on Main PCB, 4 Nuts on Display PCB) are present,
Harnesses are plugged in correctly and Relay PCB is seated securely. ☐ Completed

6.1.3.4 Verify on Main PCB that C40 is not in contact with R42 …..☐ Completed

6.1.3.5 Verify on Main PCB that U22 is not in contact with legs of TR3 …..☐ Completed

6.2 NEM TESTING

Pre Burn-in Testing Performed By/Date: _____				
NEM Calibrated	☐ Pass ☐ Fail	**Split pad upper trip res(6.2.13) 130 ≤** _____ **≤ 140** Ω		
In Solid Pad @ 0Ω	☐ Pass ☐ Fail	Solid pad upper trip res.	5 ≤ _____ ≤ 9Ω	
Solid pad limit once established	20 ≤ _____ ≤ 25Ω	Split pad lower trip res.	8 ≤ _____ ≤ 12Ω	
Split pad low limit	2 ≤ _____ ≤ 6Ω	TEST FIXTURES		
% increase in split to cause alarm	_____ %	Resistance Substitution	Eq. # _____	
Upper hard limit res.	145 ≤ _____ ≤ 155Ω	Dial Resistance Test Fixture	#_F-273- _____	

6.3 Service Mode Data / 5 VDC

MULTIMETER ID #: _____			+ 5 VDC Reading taken at Min LED setting		4.90 ≤ _____ ≤ 5.10 VDC
Mode	Power Setting	V Setting	V (No Activation)	V (Open Circuit)	V (Arcing)
Cut I (Cut)	MAX POWER	-12	10.4 ≤ _____ ≤13.6V	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V
		5.0	4.2 ≤ _____ ≤ 6.0V	4.2 ≤ _____ ≤ 6.0V	4.2 ≤ _____ ≤ 6.0V
		2.5	2.2 ≤ _____ ≤ 3.3V	2.2 ≤ _____ ≤ 3.3V	2.2 ≤ _____ ≤ 3.3V
		3.3	3.0 ≤ _____ ≤ 4.4V	3.0 ≤ _____ ≤ 4.4V	3.0 ≤ _____ ≤ 4.4V
		12	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V
Spray	80W	-12	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V
		5.0	4.2 ≤ _____ ≤ 6.0V	4.2 ≤ _____ ≤ 6.0V	4.2 ≤ _____ ≤ 6.0V
		2.5	2.2 ≤ _____ ≤ 3.3V	2.2 ≤ _____ ≤ 3.3V	2.2 ≤ _____ ≤ 3.3V
		3.3	3.0 ≤ _____ ≤ 4.4V	3.0 ≤ _____ ≤ 4.4V	3.0 ≤ _____ ≤ 4.4V
		12	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V	10.4 ≤ _____ ≤ 13.6V
JP8 Jumper Removed			($\sqrt{}$ when done)		_____

Performed By/Date: _____

6.4 Continuity Test	SAFETY/ECG ANALYZER ID #: _____
AC GND to Chassis Ground	0.10 ≥ _____ Ω

6.5 Line Current

Cut Line Current (400W) 8.00 > _____ A (others) 4.50 > _____ A

Coag Line Current 1.85 > _____ A

TEST DATA SHEET FOR ELECTROSURGICAL UNIT
IDS SERIES

Unit Serial #:_____

6.6 Low Freq. Risk Current		Normal	Reverse
Chassis Grounding Lug	500uA MAX	500 ≥_____uA	500 ≥_____uA
Return Electrode (1)	10uA MAX	10 ≥_____uA	10 ≥_____uA
Return Electrode (2)	10uA MAX	10 ≥_____uA	10 ≥_____uA
Monopolar Ft-Control	10uA MAX	10 ≥_____uA	10 ≥_____uA
Monopolar Handpiece	10uA MAX	10 ≥_____uA	10 ≥_____uA
Monopolar Handpiece (2)	10uA MAX	10 ≥_____uA	10 ≥_____uA
Monopolar Handpiece (3)	10uA MAX	10 ≥_____uA	10 ≥_____uA
Bipolar Active	10uA MAX	10 ≥_____uA	10 ≥_____uA
Bipolar Return	10uA MAX	10 ≥_____uA	10 ≥_____uA
Mono Footswitch (Pin 1)	500uA MAX	500 ≥_____uA	500 ≥_____uA
Mono Footswitch (Pin 2)	500uA MAX	500 ≥_____uA	500 ≥_____uA
Mono Footswitch (Pin 3)	500uA MAX	500 ≥_____uA	500 ≥_____uA
Mono Footswitch (Pin 4)	500uA MAX	500 ≥_____uA	500 ≥_____uA
Bipolar Footswitch (Pin 1)	500uA MAX	500 ≥_____uA	500 ≥_____uA
Bipolar Footswitch (Pin 2)	500uA MAX	500 ≥_____uA	500 ≥_____uA
Bipolar Footswitch (Pin 3)	500uA MAX	500 ≥_____uA	500 ≥_____uA

Performed By/Date: _____ ☐ Pass ☐ Fail

6.7 INITIAL OUTPUT POWER TEST	ES ANALYZER ID # _____	Output [Watts]
Cut I (Max Power)	400W @ 500Ω, 300W or 200W @ 300Ω	(400W)320 ≤_____≤ 480W or (300W)240 ≤_____≤ 360W or (200W)160 ≤_____≤ 240W
Cut II (if applicable)	300W @ 300Ω	240 ≤_____≤ 360W
Blend	200W @ 300Ω	160 ≤_____≤ 240W
Pinpoint	120W @ 500Ω	96 ≤_____≤ 144W
Spray	80W @ 500Ω	64 ≤_____≤ 96W
Bipolar (Max Power)	120W or 80W @ 150Ω	(120W) 96 ≤_____≤ 144W or (80W) 64 ≤_____≤ 96W

Performed By/Date: _____ ☐ Pass ☐ Fail

6.8 Burn-In: Start Time: ____:_____ Stop Time: _____:_____   ☐ Pass ☐ Fail

Jumper on JP6 removed (√ when done): _____

6.8.6 Post Burn-in drift check: Split pad upper trip res. after burn-in   _____Ω

Split Change in Resistance (Drift) difference from 6.2.13 and 6.8.6   0 ≤_____≤ 10Ω ☐ Pass   ☐ Fail
Resistance Substitution Box   Eq. # _____

HIPOT ID # _____

6.9 HIPOT TEST	Test Voltage	Results Pass / Fail
AC Line to: Chassis Ground	1.84kVAC	☐ Pass ☐ Fail
AC Line to: Return Electrode (Pole 1)	3.0kVAC	☐ Pass ☐ Fail
AC Line to: Return Electrode (Pole 2)	3.0kVAC	☐ Pass ☐ Fail
AC Line to: Monopolar Foot-Control Active	3.0kVAC	☐ Pass ☐ Fail ☐N/A
AC Line to: Monopolar Handpiece Active	3.0kVAC	☐ Pass ☐ Fail
AC Line to: Bipolar Active	3.0kVAC	☐ Pass ☐ Fail
Performed By / Date: _____		

TEST DATA SHEET FOR ELECTROSURGICAL UNIT
IDS SERIES

Unit Serial #:_____

6.10 High Frequency Leakage Testing, Long Leads

FM Power Meter ID #: _____

Test @ 200Ω	Active (Foot)	Active (Hand)	Return (Hand)	Return (Foot)	Pass/ Fail
Cut I	150≥_____mA	150≥_____mA	150≥_____mA	150≥_____mA	☐ Pass ☐ Fail
Cut II	150≥_____mA	150≥_____mA	150≥_____mA	150≥_____mA	☐ Pass ☐ Fail ☐ N/A
Blend (Max)	150≥_____mA	150≥_____mA	150≥_____mA	150≥_____mA	☐ Pass ☐ Fail
Pinpoint	150≥_____mA	150≥_____mA	150≥_____mA	150≥_____mA	☐ Pass ☐ Fail
Spray	150≥_____mA	150≥_____mA	150≥_____mA	150≥_____mA	☐ Pass ☐ Fail
Bipolar	63≥_____mA	N/A	N/A	63≥_____mA	☐ Pass ☐ Fail

Performed By/Date: _____

Display, Audio, Errors, Arcing, Cross couple and Activation Errors

6.11 Displays, LED's	☐ Pass ☐ Fail	6.14 ARC Test (All Modes)	☐ Pass ☐ Fail	
6.12 Audio …………………………	☐ Pass ☐ Fail	6.14.11 Cross Coupling Test	☐ Pass ☐ Fail ☐ N/A	
6.13 Accessory Inlet ………………	☐ Pass ☐ Fail	6.15 Activation Errors F1 – F6	☐ Pass ☐ Fail	
Test Fixture #: _____		Performed By/Date: _____		

6.16 Load Curve

ANALYZER ID#: _____

Mode	Dial Setting	Pass/Fail	Mode	Dial Setting	Pass /Fail
Cut I	Max W	☐ Pass ☐ Fail	Cut II	300W	☐ Pass ☐ Fail ☐ N/A
Cut I	150W	☐ Pass ☐ Fail	Cut II	150W	☐ Pass ☐ Fail ☐ N/A
Cut I	50W	☐ Pass ☐ Fail	Cut II	50W	☐ Pass ☐ Fail ☐ N/A
Blend (Max)	200W	☐ Pass ☐ Fail	Pinpoint	120W	☐ Pass ☐ Fail
Blend (Max)	100W	☐ Pass ☐ Fail	Pinpoint	60W	☐ Pass ☐ Fail
Blend (Max)	50W	☐ Pass ☐ Fail			
Bipolar	Max W	☐ Pass ☐ Fail	Spray	80W	☐ Pass ☐ Fail
Bipolar	60W (400W only)		Spray	40W	☐ Pass ☐ Fail
Bipolar	40W (200W/300W)	☐ Pass ☐ Fail			

Performed By / Date: _____

6.17 Waveforms

OSCILLOSCOPE ID # _____   HV PROBE ID # _____

Mode / Setting	Observed waveform matches:	Mode / Setting	Observed waveform matches:
Cut I @ Max W	200V/Div 2uSec ☐ Pass ☐ Fail	Pinpoint @ Max	500V/Div 10uSec ☐ Pass ☐ Fail
Cut II @ Max	200V/Div 2uSec ☐ Pass ☐ Fail ☐ N/A	Spray @ Max	1000V/Div 10uSec ☐ Pass ☐ Fail
Blend Min@ 200W	500V/Div 10uSec ☐ Pass ☐ Fail	Bipolar @ Max	200V/Div 5uSec ☐ Pass ☐ Fail
Blend Max @ 200W	500V/Div 10uSec ☐ Pass ☐ Fail		

Performed By/Date: _____

TEST DATA SHEET FOR ELECTROSURGICAL UNIT
IDS SERIES

Unit Serial #:_____

6.18 Output Power

ES ANALYZER ID # _____

Mode / Setting	Output Range	Output Power	Mode / Setting	Output Range	Output Power
CUT I @ 300 Ω (500 Ω for 400W models) **Watts**	**Watts**	**Watts**	BLEND @ 300 Ω **Watts**	**Watts**	**Watts**
6	1 - 11	1 ≤_____≤11 W	6	1 - 11	1 ≤_____≤11 W
50	40 - 60	40 ≤_____≤ 60 W	50	40 - 60	40 ≤_____≤ 60 W
100	80 – 120	80 ≤_____≤ 120 W	100	80 – 120	80 ≤_____≤ 120 W
150	120 – 180	120 ≤_____≤ 180 W	150	120 – 180	120 ≤_____≤ 180 W
200	160 – 240	160 ≤_____≤ 240 W	200	160 – 240	160 ≤_____≤ 240 W
250 (if applicable)	200 – 300	200 ≤_____≤ 300 W ☐			
300 (if applicable)	240 – 360	240 ≤_____≤ 360 W ☐			
400 (if applicable)	320 - 480	320 ≤_____≤ 480 W ☐			
Mode / Setting	**Output Range**	**Output Power**	**Mode / Setting**	**Output Range**	**Output Power**
Pinpoint @ 500 Ω **Watts**	**Watts**	**Watts**	Spray @ 500 Ω **Watts**	**Watts**	**Watts**
6	1 – 11	1 ≤_____≤11 W	6	1 – 11	1 ≤_____≤ 11 W
60	48 -- 72	48 ≤_____≤ 72 W	40	32 – 48	32 ≤_____≤ 48 W
120	96 – 144	96 ≤_____≤ 144 W	80	64 – 96	64 ≤_____≤ 96 W
Mode / Setting	**Output Range**	**Output Power**			
Bipolar @ 150 Ω **Watts**	**Watts**	**Watts**			
6	1 – 11	1 ≤_____≤ 11 W			
40	32 – 48	32 ≤_____≤ 48 W			
80	64 – 96	64 ≤_____≤ 96 W			
120 (if applicable)	96 - 144	96 ≤_____≤ 144 W ☐ N/A			

Performed By/Date: _____ ☐ Pass ☐ Fail

6.19 **Presets** ……………… ☐ Pass ☐ Fail ☐ N/A

6.19.6 **Factory Presets set** ☐ Pass ☐ Fail ☐ N/A

6.20 Pre-Close Verification

All Jumpers Removed	All Cables Securely Connected	No Foreign Material	Cover on, Invert, & Shake	No Automatic Activation	Set Power Levels to Minimum	Check DHR and Router
_____	_____	_____	_____	_____	_____	_____

6.21 Final Verification/ Certification and
InfinityQS Data Verification Performed By/ Date:_____

Accessory Kit Part#_____ **Accessory Kit Lot#_____**

QA Inspection per QA-196 by/ Date: _____

Packaging Completed per WI-0387 By/ Date: _____